

**Comparative Study**

## **Impact of Cinema on Levels of Empathy and Emotion Regulation in Artists and Non-Artists: A Comparative Study**

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### **ABSTRACT**

Cinema or Films have been one of the most popular forms of entertainment for a long time, no matter whether it's a digital or a non-digital platform. As they have become an indispensable part of our life, we need to start identifying how they affect our mental health at large. Studies have found that the majority of the population has been using cinema as a coping mechanism to avoid anxiety, negative life situations, and to prolong good moods. Earlier studies have shown the immediate effects of cinema on our emotions but work on its prolonged effects remains minimal. The current research aims to find out the impact of cinema on an individual's empathy level and how one regulates their emotions. The study was conducted on 94 individuals (47 Artists, 47 Non-Artists) between the age of 19-35 years. Standardized scales of Narrative Engagement, Interpersonal Reactivity and Emotion Regulation were administered to the participants. The results indicated a significant correlation between Narrative engage ability and Interpersonal Reactivity. No significant correlation was found between Narrative Engagement and Emotion Regulation. There were no significant differences found between the Artists and the Non-Artists. Further, it is suggested to study more about the prolonged effects, direct or indirect, of cinema on empathy and regulation of emotions to have a better understanding of its impact.

**Keywords:** *Cinema, Emotions, Empathy, Narrative Engagement, Emotion Regulation*

*"Cinema's characteristic forte is its ability to capture and communicate the intimacies of the human mind." - Satyajit Ray*

Similar to the above quote, it was Oscar Wilde (1889) who said that it's Life that imitates Art far more than Art imitates Life. A very big part of our life has been influenced, directly or indirectly, by what kind of cinema we are exposed to. It has been bringing new characters and stories to us in every possible combination of social, cultural, familial, and economic backgrounds. It is a channel that exposes us to different emotions and their intensities, stimulates thinking, enhances our power of imagination, and sometimes acts as a medium of catharsis. There have been studies where superhero movies like Marvel and DC have been considered to be used for cinema therapy (Dantzler, 2015; Nielsen, 2017) because of the portrayal of real human emotions through fictional content.

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Films have been a very successful source for eliciting as well as inducing a wide range of both positive and negative emotions like happiness, anger, empathy, etc. as compared to static images (Howard, 2014) or imagined trauma incidents (Khoo, 2012). Film stimulus is harmlessly used for emotional elicitation by showing others' in a distressing situation, thus ensuring empathic engagement. It can be a useful source for evoking different types of emotions because of its use of both auditory and visual stimuli, which help capture the attention of the individual (Rottenberg, Ray & Gross, 2007). There can be scripted or non-scripted film clips catering to the specific requirements of the experiment.

Some quite remarkable studies and experiments have been conducted by researchers like Gross & Levenson (1993), Philippot (1993) & Zillmann (1988) in the field of cinematic engagement and its psychological effects on the affective, cognitive and behavioural aspects of an individual. Over five years of work, a set of films were developed which could successfully elicit eight diverse emotions which were anger, amusement, contentment, disgust, fear, neutrality, sadness, and surprise (Gross & Levenson, 1993). Further, A study on 60 university students, assessed on three different emotion scales, found that Film segments could elicit a wide range of emotions, from a majority of individuals, in the same way (Philippot, 1993).

One of the upcoming branches of psychology is Psychocinematics which studies the relationship between Cinema and the impact it has on our cognition, behaviour, and emotions. It is a field that works on the foundations of aesthetic science, that is, the study of the mind and emotions with a sense of beauty. It studies the influence of cinema on the audiences' understanding of the world in general. Shimamura (2012) wrote in his book that we human beings pick cues from our external environment and look at the world with those schemas. So, films also give us such cues with which we understand the onset of emotions, the reasons behind it, and what consequences it may lead to (Shimamura, 2012). According to him, while watching a film we put aside our own goals and aims by emotionally investing in the goals of the character. Therefore, we then experience the characters' journey with our own emotions, thus, using our empathetic skills.

### ***Narrative Engagement (Cinema)***

The narrative is 'the representation of an event or a series of events' (Abbott, 2002). Narrative Engagement, on the other hand, is the immersion of one's perceptive world into the world of stories. It is the sensation of getting 'pulled in' to the world of narrative while losing our sense of awareness in the real world (Busselle, 2019). It is closely related to transportation and story absorption as they all mean getting emotionally and cognitively engaged with the narrative be it in a written or an audio-visual form. Engagement in a narrative means a greater effect on our emotions and albeit greater would be its influence on our current state of mind.

In a study (Visch, 2009) the effect of immersion was observed on the intensity of emotions of the participants. Self-reporting of emotions was taken as a measure after the viewing experience and it was found that those who were highly immersed in the cinema experienced more intense emotions compared to those who were low on immersion. High immersion intensified the basic dimension of emotions like sadness (fictional film) and fascination (artefact film).

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A study was conducted to develop and test the effectiveness of the emotional film excerpts (Schaefer, Nils, Sanchez, Philippot, 2010). It was found that film clips were effective with regard to arousal, positive and negative affect, and emotional discreteness.

### ***Empathy***

Chambers English Dictionary (1989 edition) defined Empathy as ‘the power of entering into another’s personality and imaginatively experiencing his experiences.’

As said by the famous psychologist Daniel Goleman (2020), “Empathy is awareness of others’ feelings, needs and concerns.”. It is the ability to put yourself in someone else's shoes and understand how that person is feeling in the moment. Empathy is one of the key skills to become a fully functioning person as said by Carl Rogers in his Client-centred therapy. According to him, the state of Empathy is to perceive the world from the other person’s internal frame of reference considering their emotional components and meanings with accuracy.

While developing and validating a new Narrative Engageability scale from four previous studies, Bilandzic et. al., (2019) found a high correlation between Narrative Engageability and Empathy.

In a study by Howard (2014), it was found that Empathy film clips were able to elicit empathic emotions in the undergraduate students as compared to Non-Empathy or Neutral film clips. One of the best studies on Films and Empathy was conducted by Trabasso and Chung (2004). They showed 2 films, *Vertigo* and *Blade Runner* to 20 participants, divided into two groups. The results showed that the observation by the first group on the success of the protagonist or failure of the antagonist coincided very well with the emotions felt by the second group. The achievement of the protagonist (or failure of the antagonist) elicited positive emotions in the viewers like happiness, pleasure, relief, and satisfaction, whereas, the failure of the protagonist (or success by the antagonist) elicited negative emotions like frustration, anger, anxiety, fear, etc. in the viewers. This study clearly shows the phenomena of identification as well as empathy associated with the stimulus of films.

### ***Emotion Regulation***

“Emotion Regulation consists of the extrinsic and intrinsic processes responsible for monitoring, evaluating and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals.” (Thompson, 1994)

According to APA (2020), Emotion Regulation can be defined as the ability of an individual through which they modulate their emotion or a set of emotions.

Emotion Regulation has two dimensions which are Cognitive Reappraisal and Expression Suppression. Suppressed expressions of induced emotions can result in increased levels of stress and disruption of communication with others (Butler, Egloff, Wilhelm, Smith, Erikson & Gross, 2003). Additionally, Butler et. al., (2003) found that suppression of the emotional expression by one participant resulted in an increase in the blood pressure of their pair. Emotions, if suppressed, can result in the depreciation of physiological and mental resources. This, therefore, indicates that induced emotions are highly consequential to our emotional expressions. Coherence between experiential and behavioural responses was found to be highly dependent upon the intensity of emotions experienced (Mauss, Levenson,

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McCarter, Wilhelm & Gross, 2005). According to this study, films that induced more intense emotions of amusement resulted in more coherence between behaviour and physiological responding, but the same could not be applied to the emotion of sadness.

Social sharing is a way of expressing ones' built-up emotions. It occurs due to two causes of intense emotions which are: rumination about the emotional material and wanting the company of others. The rumination brings out the vulnerability of these individuals which makes the emotional thoughts likely to come up while they are seeking the company of others. Luminet (2010) conducted an extensive study, including three experiments to study the relationship between emotional intensity and amount of social sharing among undergraduate students by using film stimulus. Participants who were shown an emotionally intense film were seen to be engaged in more social sharing as compared to those who were shown a non-emotional or moderately emotional film. In the third experiment, it was found that this social sharing (after exposure to the emotionally intense film) was not only confined to the laboratory conditions but also was highly significant in the everyday life of these individuals.

### *Purpose*

The purpose is to study the effects of engagement in narrative on the levels of empathy and emotion regulation.

### *Hypothesis*

- There will be a positive correlation between Narrative Engagement and Empathy
- There will be a positive correlation between Narrative Engagement and Emotion Regulation
- There will be no significant difference in Narrative Engagement between Artists and Non-Artists.
- There will be no significant difference in Empathy between Artists and Non-Artists.
- There will be no significant difference in Emotion Regulation between Artists and Non-Artists.

## **METHODOLOGY**

### *Sample*

The sample consisted of 94 participants which included 47 Artists and 47 Non-Artists from across the Tricity and Delhi. Artists included self-proclaimed writers, musicians, actors, chefs, dancers, photographers, filmmakers and others.

### *Measure*

The following standardized scales were used for the measurement:

- **Narrative Engage ability Scale:** Narrative Engagement was measured using the 16-item scale developed by Busselle and Bilandzic (2009). It is composed of the five subscales Presence Propensity, Emotional Engage ability, suspense/curiosity Propensity, Ease of Accepting Unrealism, and Ease of Being Engaged Despite Adverse surroundings. The participants were asked to mark on the 7 point Likert scale – agree (7) to disagree (1).
- **Interpersonal Reactivity Index:** (Davis, 1980) IRI is a 28-item questionnaire answered on a 5-point Likert scale which ranges from “Does not describe me well” to “Describes me very well”. It has 4 subscales, made up of 7 different items each.

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These subscales are Perspective Taking – a tendency to adopt another persons’ point of view. Fantasy – to measure the extent of how individuals can transpose themselves into the emotions of other fictional characters. Empathic Concern – measures the capacity to feel and be concerned for others. Personal Distress - measures "self-oriented" feelings of anxiety in individuals’ situations and a sense of unease in distressful situations.

- **Emotion Regulation Questionnaire (ERQ):** (Gross & John, 2003) ERQ is a 10-item scale designed to measure respondents’ tendency to regulate their emotions in two ways: (1) Cognitive Reappraisal and (2) Expressive Suppression. Respondents answer on a 7-point Likert scale ranging from 1 i.e., strongly disagree to 7 i.e., strongly agree.

### *Procedure*

The participants were informed about the purpose of the study and the questionnaires were filled through Google Forms. The participants were asked to answer honestly and were assured of the confidentiality of the results. Each participant was thanked for their cooperation. Standardized psychological tests were administered to the participants.

### *Analysis of Data Results*

**Table 1: Shows the N, Mean and Standard Deviation of the data.**

	N	Mean	Standard Deviation
Narrative Engagement Scale	94	84.1	13.8
Presence Propensity	94	16.6	3.52
Emotional Engage-ability	94	17.5	3.6
Suspense/Curiosity Propensity	94	21.3	4.41
Ease of Accepting Unrealism	94	15.4	4.07
Ease of Being Engaged	94	13.8	4.12
Interpersonal Reactivity Index	94	74.9	11.3
Perspective Taking	94	19.4	4.14
Fantasy	94	19.4	4.78
Empathic Concern	94	20.8	4.4
Personal Distress	94	15.4	4.33
Emotion Regulation	94	44.3	12
Cognitive Reappraisal	94	28.6	7.9
Expressive Suppression	94	15.7	6.14

**Table 2: Shows the Correlation between the studied variables**

	Narrative Engagement Scale	Interpersonal Reactivity Index	Emotion Regulation
Narrative Engagement Scale	-		
Interpersonal Reactivity Index	0.0440**	-	
Emotion Regulation	0.04	0.049	-

*Note.* \*  $p < .05$ , \*\*  $p < .01$

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**Table 3: Shows the Correlation between the studied variables and their sub-scales**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Narrative Engagement Scale	-													
2. Presence Propensity	0.681**	-												
3. Emotional Engageability	0.658**	0.355**	-											
4. Suspense/Curiosity Propensity	0.819**	0.502**	0.465**	-										
5. Ease of Accepting Unrealism	0.676**	0.337**	0.373**	0.44**	-									
6. Ease of Being Engaged	0.592**	0.287**	0.162	0.400**	0.223*	-								
7. Interpersonal Relativity Index	0.440**	0.351**	0.294**	0.413**	0.209*	0.24*	-							
8. Perspective Taking	0.123	0.103	0.032	0.212	0.091	0.281**	0.525**	-						
9. Fantasy	0.599**	0.513**	0.500**	0.420**	0.376**	0.310**	0.692**	0.202	-					
10. Empathic Concern	0.211*	0.142	0.142	0.238*	0.057	0.171	0.778**	0.365**	0.357**	-				
11. Personal Distress	0.206*	0.135	0.134	0.181	0.199	0.099	0.535**	0.132	0.178	0.295**	-			
12. Emotion Regulation	0.04	0.032	0.138	0.085	0.062	0.085	0.049	0.226*	0.055	0.029	0.277**	-		
13. Cognitive Reappraisal	0.038	0.014	0.133	0.092	0.074	0.007	0.025	0.229*	0.057	0.119	0.316**	0.889**	-	
14. Emotional Suppression	0.127	0.043	0.098	0.047	0.216*	0.157	0.065	0.146	0.034	0.096	0.134	0.807**	0.447**	-

Note. \*  $p < .05$ , \*\*  $p < .01$

**Table 4: Shows the significant correlations between the subscales of the variables**

	Perspective taking	Personal Distress
Cognitive Reappraisal	0.229*	0.316**

**Table 5: Shows the p values of the t-test**

	Group	N	Mean	SD	p
Narrative Engagement Scale	A	47	83.1	14	0.461
	NA	47	85.2	13.59	
Presence Propensity	A	47	16.3	3.7	0.398
	NA	47	16.9	3.33	
Emotional Engage-ability	A	47	17.5	3.25	0.955
	NA	47	17.4	3.95	
Suspense/Curiosity Propensity	A	47	21.3	4.28	0.945
	NA	47	21.3	4.58	
Ease of Accepting Unrealism	A	47	14.7	4.54	0.117
	NA	47	16	3.45	
Ease of Being Engaged	A	47	14	4.25	0.551
	NA	47	13.5	4.02	
Interpersonal Reactivity Index	A	47	75	10.28	0.942
	NA	47	74.8	12.43	
Perspective taking	A	47	19.7	4.11	0.52
	NA	47	19.1	4.19	
Fantasy	A	47	19.6	4.89	0.732
	NA	47	19.3	4.71	
Empathic Concern	A	47	21	4.2	0.78
	NA	47	20.7	4.64	
Personal Distress	A	47	15.1	4.03	0.523
	NA	47	15.7	4.63	
Emotion Regulation	A	47	44.1	12.63	0.891
	NA	47	44.4	11.41	
Cognitive Reappraisal	A	47	28.6	8.67	0.969
	NA	47	28.6	7.14	
Expressive Suppression	A	47	15.5	6.45	0.828
	NA	47	15.8	5.87	

## DISCUSSION

The universality of the effect of cinema engagement on emotions was confirmed in a Japanese study where it was found that a set of film stimuli could evoke target as well as non-target emotions in the participants (Sato, et.al., 2007). A significant positive correlation was found between television exposure and stigma and willingness to seek therapy in a study conducted by Vogel, Gentile, and Kaplan (2008). In studies like these, it can be confirmed that engagement in the narrative has a significant effect on the perceptions and feelings of the viewers. The results in the present study indicate that Narrative Engage ability has a significant positive correlation with Interpersonal Reactivity ( $r = 0.440$ ,  $p < 0.001$ ). One of the subscales of Interpersonal Reactivity Index, that is, Empathic Concern is positively correlated with narrative engagement ( $r = 0.211$ ,  $p < 0.05$ ). From this, it can be inferred that engagement in cinema is somewhere contributing to the empathic concerns of the viewers than other individuals. Cognitively and emotionally understanding the perspective of different characters has helped individuals in transposing the same skill to real-life situations. There was no significant correlation found between Emotion regulation and narrative engagement. Also, there was no significant difference found in the responses of Artists and Non-Artists. Therefore, the null hypothesis has been accepted. Apart from this, another finding showed that individuals who are good at suppressing their emotions tend to accept unrealism more easily than others. This is because there was a significant positive correlation found between Ease of Accepting Unrealism and Expressive Suppression ( $r=0.216$ ,  $p<0.05$ ). Cognitive Reappraisal was also significantly correlated with Perspective Taking ( $r= 0.229$ ,  $p<0.05$ ) which can indicate that individuals who are accepting of others' perspectives are better at regulating their emotions by bringing cognitive changes in the emotion-eliciting situations. These individuals accept differences in opinions and are open to new perspectives which helps them in reframing an emotion-eliciting situation making them better at regulating their emotions.

## CONCLUSION

The above-conducted research was aimed at finding a correlation between Engagement in the narrative of cinema, levels of Empathy, and emotion regulation in Artists and Non-Artists. A significant correlation was found between Engagement and Empathy but none was found between Emotion Regulation and Narrative engagement. This research had limitations like self-reporting and a lack of extensive insights into the emotion regulation of the participants. There were a huge number of factors or variables like the genre of the films watched, individual characteristics, situational variables, mediating variables, etc. which could have been controlled to have objectively better responses. So, keeping the limitations of this study in mind, it is suggested to conduct a more extensive study on the indirect and prolonged effects of cinema on the emotions of the viewers as it can help us structure techniques related to cinema like Cinema Therapy in a more organized way.

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### ***Conflict of Interest***

The author(s) declared no conflict of interest.

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